Company Name:	ABC	Prepared by:	
Functional Area/SOW:	Installation testing for firefighting piping system and accessories	Approved by:	

Ref.	Sub-Activities	Hazards Identified	Risks Involved	Risk Rating			Control Measures	Residual Risk			Action by
				Consequences	Likelihood	Risk Rating		Consequences	Likelihood	Risk Rating	
1.	Prepare work area	Unauthorized, untrained workers	Cuts Abrasions	3	2	6	• Toolbox Talks (TBT)/DSTI (Daily Safe Task Instruction) to be conducted by the foreman/ safety officer prior to work commencement • to be conducted by the foreman/ safety officer prior to work commencement	1	2	2	Project Manager/ engineer/Foramen/Technicians/
2.	Storage Material	Over Loading Improper storing Poor Posture	Crush Slip, trip, fall Property Damage	3	2	6	• Task specific safety training to be provided • Authorized personnel to undertake the job • Daily safety inspection should be carried and eliminate the hazard • PTW to be applied and obtained prior to start work	1	2	2	Project Manager/ engineer/Foramen/Technicians/
3.	Manual Handling	Incorrect lifting of loads. Sharp edges. Placing the object while fingers underneath.	Crush Back Injuries Strain and Sprain	4	4	16	• Toolbox Talks (TBT)/DSTI (Daily Safe Task Instruction) to be conducted by the foreman/ safety officer prior to work commencement • to be conducted by the foreman prior to work commencement • Storage of materials in the works structures shall be minimized. • Storage should be carried out in good time and in designated places on the site. • Task specific safety training to be provided • The material should be stored as per the material type and / or quality of the product.	2	2	4	Project Manager/ engineer/Foramen/Technicians/

							• Materials that become unstable in bad weather should be covered. • Proper PPE to be warned • Good housekeeping should be maintained.				
4.	Working at Height	Possible falls Falling material Untrained, Unauthorized workers	Slip, trip, fall Fracture Fatality	3	3	9	• No employee should be asked to carry loads above his capacity and in any case no load shall exceed 30kg per man. • Avoid manual handling where reasonably practical. E.g. use mechanical equipment. • Toolbox Talks (TBT)/DSTI (Daily Safe Task Instruction) to be conducted by the foreman/ safety officer prior to work commencement • to be conducted by the foreman prior to work commencement • Take help if load is large/very heavy. • Check the line of travel. Don't allow the load to obstruct the view • The area should be free from fall, slip and trip hazards. • Training personnel in kinetics of manual lifting. • Use personnel protective equipment as provided. (Safety shoes, helmets, coveralls, hand gloves etc.)	2	2	4	Project Manager/ engineer/Foramen/Technicians/
5.	Working in excavated area and floor opening area	Material/equipment fall from height Slip/trip/fall Workers/ Pedestrians/ fall into excavation	Serious injury Fatality Property Damage	3	3	9	• Scaffolding/ladder to be used as per safe work load. • Working platforms should be clear of men and material when the scaffold is being moved. • Incomplete and non-standard scaffold should not be allowed for any work. • The practice of moving rolling scaffolds with workers on the platform is strictly prohibited. • Inspection tagged (by authorized person)/ firmly fixed heavy duty ladders / scaffolding should be used. • Wheels will be locked when the scaffolding is in use. • Proper/Adequate access and egress should be provided to scaffold.	1	2	2	Project Manager/ engineer/Foramen/Technicians/

6.	Working with hand held tools/ Power tools	Defective equipment Improper use of equipment Poor maintenance Untrained workers	Hand, Finger Injury Eye Injury	3	3	9	• The route should be sufficiently clear of overhead wires. • At the end of each working shift the scaffold should be secured against unauthorized access • No site made wooden ladders should be allowed. • Ladders must be secured before use. In case of any practical difficulties there should be an additional person to hold the ladders. • Ensure that when ladder is used for access to a scaffold, both bottom and top portion of the ladder is secured to prevent displacement. • While ascending or descending, the user shall face the ladder, use both hands and place his feet so that three-point contact is always be used when climbing ladders. • While getting on or off the ladder both hands must Ladders should be inspected prior to use. They must be inspected on a monthly basis by a qualified person. • Destroy any defective ladders immediately or remove them from the site. • Safety harness should be worn if the platform is above 2 metres from the ground level. • Toolbox Talks (TBT)/DSTI (Daily Safe Task Instruction) to be conducted by the foreman/ safety officer prior to work commencement • to be conducted by the foreman prior to work commencement	1	2	2	Project Manager/ engineer/Foramen/Technicians/
7.	Gas Cutting	Fire Untrained Unauthorized Worker Gas Leakage	Electric Shock Burns Skin Effect Eye Injury	4	4	16	• Toolbox Talks (TBT)/DSTI (Daily Safe Task Instruction) to be conducted by the foreman/ safety officer prior to work commencement • to be conducted by the foreman/ safety officer prior to work commencement • Task specific safety training to be provided • Barricade sensitive areas • Ensure falling protection. • Use warning signboards in those areas. • Use Head protection	2	2	4	Project Manager/ engineer/Foramen/Technicians/

							• PTW to be applied and obtained prior to start work • Prevent items falling from scaffolding onto people below- use toe boards and warning signs. • The slab openings should be provided with secure cover.				
8.	Noise atmosphere	Improper maintenance of Tools PPE awareness	Deafness	4	4	16	• Toolbox Talks (TBT)/DSTI (Daily Safe Task Instruction) to be conducted by the foreman/ safety officer prior to work commencement • to be conducted by the foreman/ safety officer prior to work commencement • Task specific safety training to be provided • Defective tools should not be issued or used to perform a task. • All portable power tools should be fitted with adequate fuse protection either in the tool body or in its electrical plug. • The weight, size and type of tool should be selected to suit the job being carried out. • Only those persons who have been adequately trained and experienced in the use of the tool should be allowed to use the same. • Tools should be maintained in good working condition and tested at regular intervals. • All tools & machines should be neatly and correctly stored when not in use. • Appropriate PPE Should use	2	2	4	Project Manager/ engineer/Foramen/Technicians/
9.	Operating with Thread Machine	Defective Machine Improper use of Machine Poor maintenance Untrained, Unauthorized workers	Cuts Crush Skin Effect Entanglement Eye, finger injury	3	3	9	• Hot work permit arranged before carrying out any hot works. • All Flammable /combustible materials should be removed from the area where welding & gas cutting operations are carried out. • Signage boards should be provided. • Fire blankets should be used to contain sparks and molten metal's within the floor and should not be allowed to fall from height. Areas below cutting shall be barricaded.	2	2	4	Project Manager/ engineer/Foramen/Technicians/

							• The cylinders should be kept in a trolley always. It should not be laid on floor; it should be in upright position. • Toolbox Talks (TBT)/DSTI (Daily Safe Task Instruction) to be conducted by the foreman/ safety officer prior to work commencement to be conducted by the foreman/ safety officer prior to work commencement • Task specific safety training to be provided • Suitable fire extinguishers should be ready for instant use in any location where hot work is being performed. • Anti-flashback arrestor must be provided in all gas cutting set. • Hoses should be of approved type and should be free				
10.	While working at night shift	Poor illumination Fall from height	Fatality Slip/trip/fall	3	3	9	• Noise measurements should be carried out where noise is produced and at other work places where operatives may be subject to higher level than their work generates. • Use of alternative, less noisy tools and equipment's or methods. • Appropriate ear protectors must be worn. • PTW to be managed to start work	2	2	4	Project Manager/ engineer/Foramen/Technicians/
11.	Working in hot weather	Heat	Dehydration Sunburn Skin Cancer	3	3	9	• Toolbox Talks (TBT)/DSTI (Daily Safe Task Instruction) to be conducted by the foreman/ safety officer prior to work commencement to be conducted by the foreman/ safety officer prior to work commencement • Task specific safety training to be provided • Defective machine should not be issued or used to perform a task. • Only those persons who have been adequately trained and experienced in the use of the machine should be allowed to use the same. • Machine should be maintained in good working condition and tested at regular intervals. • Appropriate PPE Should use • Good housekeeping should be maintained.	2	2	4	Project Manager/ engineer/Foramen/Technicians/

12.	Work Completion	Poor housekeeping	Fire Slip/trip/fall	3	3	9	• Proper illumination to be provided • Light post to be secured from fall • Proper cable management system to be followed • All materials to be staged in proper manner without obstacles				

Table-I: Rating of Likelihood of Occurrence

S. No.	Descriptor	Likely Frequency	Probability
1.	Frequent /Almost Certain	Occurs frequently	5
2.	Often	Occurs several times per year	4
3.	Likely	Has occurred more than once per year	3
4.	Possible	Has occurred once per year	2
5.	Rare	Never occurred	1

Table-II: Rating of Severity of Consequence

Area impacted	Health & Safety Consequences				
	Insignificant (Score = 1)	Minor (Score = 2)	Moderate (Score = 3)	Major (Score = 4)	Catastrophic (Score = 5)
Human Health and Safety	Minor injuries, which may require self-administered first aid. Injured personnel can continue to perform normal	Injuries requiring on-site treatment by medical practitioner. Personnel unable to continue to perform duties.	Serious injuries requiring off-site treatment by medical practitioner or immediate evacuation to hospital. Potential long-term or permanently disabling effects.	Single fatality.	Multiple fatalities.
Production Loss	Incident event without causing production loss.	Production loss or delay up to one week.	Production loss or delay of one week to one month.	Production loss or delay for over one month.	Loss of licence to operate or ability to produce indefinitely.
Total Cost of Impacts or Incident Event	Financial loss (compensation, fines, cost to repair, plant damage) of less than AED/USD 0,000.	Financial loss (compensation, fines, cost to repair, plant damage) of AED/USD 0,000 – AED/USD 00,000.	Financial loss (compensation, fines, cost to repair, plant damage) of AED/USD 00,000 – AED/USD 000,000	Financial loss (compensation, fines, cost to repair, plant damage) of AED/USD 000,000 – AED 00M.	Severe financial penalties or legal liabilities. Financial loss (compensation, fines, cost to repair, plant damage) of greater than AED/USD 00M.

Table-III: Risk Rating Matrix

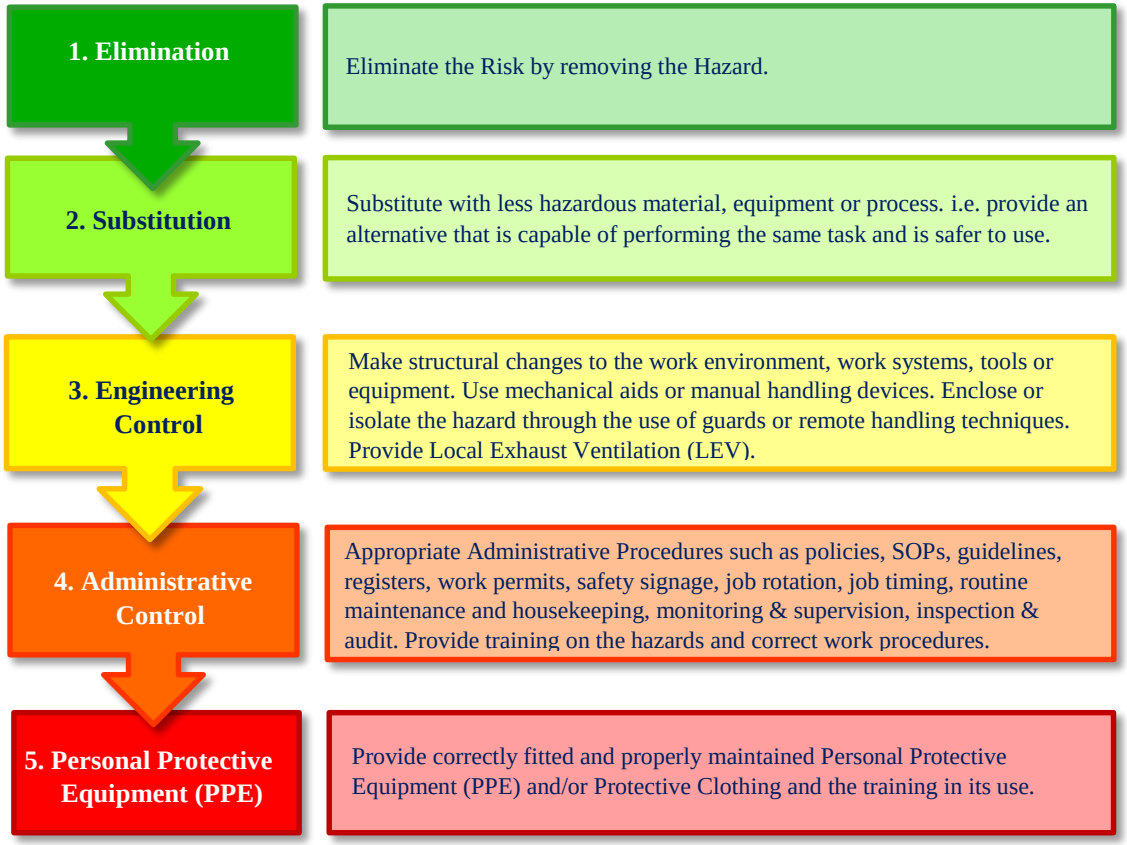
RISK ASSESSMENT MATRIX		*Severity of Consequence*				
		Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
Likelihood of Occurrence	Rare (1)	1	2	3	4	5
	Possible (2)	2	4	6	8	10
	Likely (3)	3	6	9	12	15
	Often (4)	4	8	12	16	20
	Frequent/ Almost Certain (5)	5	10	15	20	25

Table-IV: Risk Categorization & Prioritization

Risk Categorization & Prioritization		
Risk Factor	**Risk Category**	**Action Required**
15 – 25	**Extreme Risk**	**Absolutely Unacceptably High** Activity or industry should not proceed in current form.
8 – 12	**High Risk**	**Unacceptably High** Activity or industry should be modified to include remedial planning and action and be subjected to detailed HS impact assessment
4 – 6	**Moderate Risk**	**Acceptable but must be managed at ALARP Level** Activity or industry can operate subject to management and/or modification
1 – 3	**Low Risk**	**Acceptable without further action required** No immediate action required, unless escalation of risk is possible

Figure-1: Hierarchy of OSH Control Measures *(in the order of preference)*

(* Controls identified may be a mixture of the hierarchy in order to minimize the probability and/or severity of the risk)


1. Elimination
Eliminate the Risk by removing the Hazard.
2. Substitution
Substitute with less hazardous material, equipment or process. i.e. provide an alternative that is capable of performing the same task and is safer to use.
3. Engineering Control
Make structural changes to the work environment, work systems, tools or equipment. Use mechanical aids or manual handling devices. Enclose or isolate the hazard through the use of guards or remote handling techniques. Provide Local Exhaust Ventilation (LEV).
4. Administrative Control
Appropriate Administrative Procedures such as policies, SOPs, guidelines, registers, work permits, safety signage, job rotation, job timing, routine maintenance and housekeeping, monitoring & supervision, inspection & audit. Provide training on the hazards and correct work procedures.
5. Personal Protective Equipment (PPE)
Provide correctly fitted and properly maintained Personal Protective Equipment (PPE) and/or Protective Clothing and the training in its use.

Assessed by:			Reviewed by:		Assessment Details:
Signatures:			Signatures:		
Name & Designation:			Name & Designation:		